SD427
.M8
P94
1990

United States Department of Agriculture

Forest Service

Southwestern Region

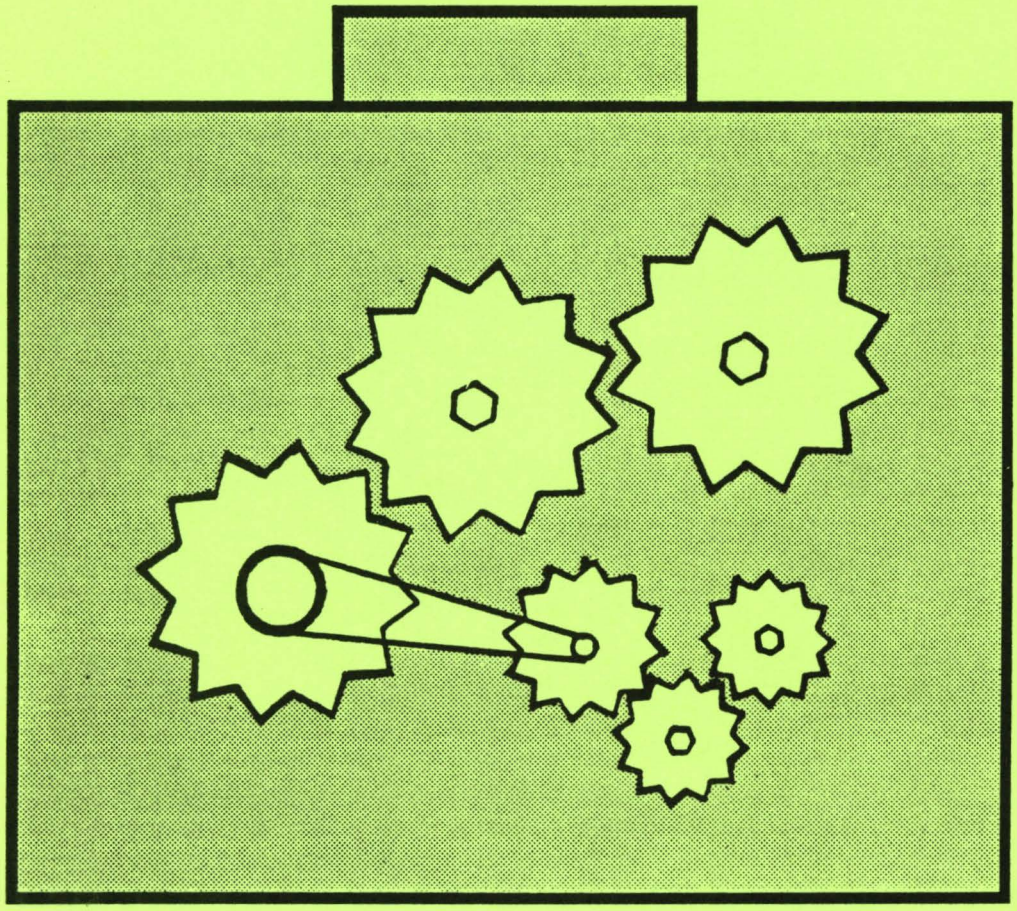
Integrated Resource Management

Third Edition

Project

Implementation

Process



PROJECT IMPLEMENTATION PROCESS

for

INTEGRATED RESOURCE MANAGEMENT

(3rd Edition)

AUGUST 1990

LIBRARY COPY
ROCKY MTN. FOREST & RANGE
EXPERIMENT STATION

PROJECT IMPLEMENTATION PROCESS FOR IRM

TABLE OF CONTENTS

	DESCRIPTION	*PAGE*
Forward		1
Phase Chart		3
Region 3	Management Model	4
Phase 1	Define Nature of Decision and Review Forest Plan	5
Phase 2	Develop Project Concept and Scope	6
Phase 3	Conduct Extensive Reconnaissance	7
Phase 4	Prepare Feasibility Report	8
Phase 5	Check Budget Link	9
Phase 6	Conduct Intensive Reconn, Survey, or Design	10
Phase 7	Finalize and Compare Alternatives	11
Phase 8	Select Proposed Action	12
Phase 9	Prepare NEPA Documentation	13
Phase 10	Check Project Record	14
Phase 11	Prepare Project Action Plan	15
Phase 12	Implement Project	16
Phase 13	Monitor and Evaluate Results	17
Compressed	Project Implementation Process	18
Appendix 1	Helpful Hints	21
Appendix 2	Process Roles Chart	22
Appendix 3	Plan Change Process	23
Appendix 4	Tiering Projects to Forest Plan	24
Appendix 5	Documentation Choices	25
Appendix 6	Public Involvement Process	26
Appendix 7	Line Officer Interface	27
Appendix 8	Geographic Information System Interface	28
Appendix 9	Archeology Interface	29
Appendix 10	Visual Resource Interface	30
Appendix 11	Silviculture Interface	31
Appendix 12	Pesticide Use Interface	32
Appendix 13	Mining Claims Interface	33
Appendix 14	Mineral Leases Interface	34
Appendix 15	Threatened, Endangered and Sensitive Species Interface	35
Appendix 16	Recreation Construction Interface	36
Appendix 17	Road Development Interface	37
Appendix 18	Resource Access/Travel Management Interface	38
Appendix 19	Best Management Practices Interface	39
Appendix 20	Process Record Index Example	40
Appendix 21	Evaluation Criteria Examples	41
Appendix 22	Economics in IRM	42
Glossary		43

FORWARD

The Integrated Resource Management (IRM) Process has a long history in the Southwestern Region. It began when the Region was looking for a way to improve the quality of timber sales. Initially, the process focused on timber sale design.

Over time, people with special knowledge in other resource areas became more involved with the process. Also, as time went on, those involved were required to respond to an ever increasing number of laws, rules, regulations, and policies.

In addition, the Region became more involved with people--the citizens of the United States. A full spectrum of citizen participation activities emerged ranging from informal discussions and contacts to formal partnerships, from public meetings and active involvement in planning and decision-making to formal appeals and lawsuits.

The National Forest Management Act (NFMA) put even more emphasis on Integrated Resource Management. NFMA required each National Forest to prepare a Forest Plan. Forest Plan objectives describe the desired future condition to be accomplished by various resource management activities (projects). To assure that planned projects are consistent with Forest Plans and other appropriate laws and regulations, Region 3 uses the Project Implementation Process (PIP).

The Project Implementation Process is strongly committed to Integrated Resource Management. IRM is a land management philosophy which recognizes that all the natural resources are connected through an intricate series of interrelationships. These interrelationships cause any project which affects one resource to have direct and indirect effects on other resources. The interrelationships which exist between natural resources are complex and are not always well understood.

An interdisciplinary approach to project design is used to adequately identify resource interrelationships and predict the effects of projects. An interdisciplinary approach identifies the resources involved, defines the resource interrelationships, and predicts the effects or impacts of the project.

Working in an interdisciplinary setting, while following a large number of environmental laws, rules and regulations, and policies, and simultaneously responding to the needs of our diverse publics, became a very difficult and complex process. IRM reduces the complexity and magnitude of the problem through a logical sequence of process phases.

The IRM process is a 13-Phase process which incorporates the NFMA, NEPA, public involvement, and other legal requirements in project design. The first phase is a review of the Forest Plan followed by the initial determination of the parameters of the project. Subsequent phases guide the design process so that NEPA and other legal compliance is assured, Forest Plans are maintained, citizen participation is sought and utilized, adequate environmental analysis is accomplished, and, most importantly, successful on-the-ground project implementation is achieved.

This IRM process guide is broken into "phases" to clarify the logical sequence for sound project planning, considering NEPA , NFMA, and public involvement requirements. The process components have been called "phases" rather than steps because the process is not linear. Several phases may be done simultaneously and some phases may have to be repeated as the project develops.

IRM is a philosophy about project design logic. It is not a cook book or a rigid set of hoops to jump through. IRM is a way of thinking about the components of quality project implementation. This guide book has several parts: Since projects are not all the same in complexity, impact, time to design and implement, degree of public interest, and nature of decision, the guide book contains a condensed version for small projects and a detailed description of the full 13 phases for other projects. Also included are a series of interface charts

that give hints on how special functional requirements fit in the process. A section on process management gives tips to line officers and interdisciplinary team leaders on managing the process. An example of how to organize project records is included.

This book should be used as intended--as a guide to thinking through and documenting quality projects. The responsibility to manage the process rests with line officers. Process managers have the discretion to vary the detail and intensity of process phases. However, the basic thought process should be the same for all projects.

PROJECT IMPLEMENTATION AND NEPA PROCESS

SCOPING

1. DEFINE DECISION, REVIEW PLANS
2. DEVELOP PROJECT CONCEPT
3. CONDUCT EXTENSIVE RECON
4. PREPARE FEASIBILITY REPORT

ANALYSIS

5. LINK TO BUDGET
6. CONDUCT INTENSIVE RECON
7. FINALIZE, COMPARE ALTERNATIVES
8. SELECT PREFERRED ALTERNATIVE

DOCUMENTATION

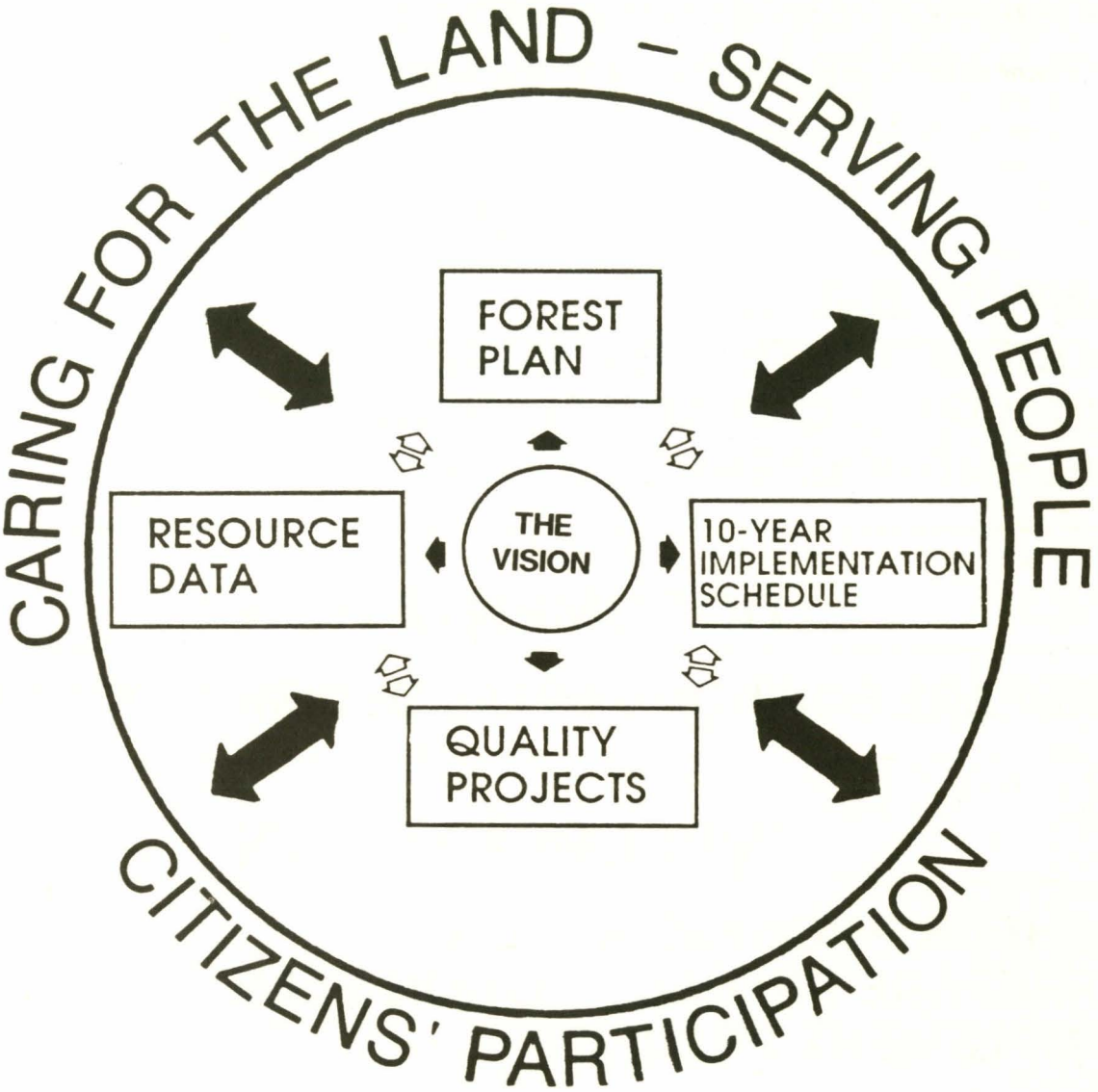
9. PREPARE ENVIRONMENTAL/DECISION DOCUMENTS

IMPLEMENTATION

10. CHECK PROCESS RECORD
11. PREPARE PROJECT ACTION PLAN
12. IMPLEMENT PROJECT

MONITORING

13. MONITOR AND EVALUATE RESULTS


CARING FOR THE LAND – SERVING PEOPLE
FOREST PLAN
RESOURCE DATA
THE VISION
10-YEAR IMPLEMENTATION SCHEDULE
QUALITY PROJECTS
CITIZENS' PARTICIPATION

PHASE 1 - DEFINE NATURE OF DECISION AND REVIEW FOREST PLAN

PHASE OBJECTIVE

Determine the nature of the decision to be made and identify the responsible official who will make the decision. Determine how proposed project may contribute to the accomplishment of Forest Plan goals and objectives. Determine how proposed project may contribute to other existing plans and programs including those of other agencies. Describe the desired or expected future condition of the land and resources in the project area based on the forest plan.

NARRATIVE

This phase marks the beginning of project scoping (NEPA definition).

Before starting a specific project analysis, some additional Forest Plan Implementation analysis may be needed to disaggregate and/or clarify forest plan goals, objectives, implementation schedules, etc. This preproject analysis should follow IRM Phases one through six before starting Phase 1 for a specific project.

The nature of the decision to be made should be briefly stated and the responsible official identified. The nature of the decision helps define project scope and should reflect what will be decided on this project. A project may be a single activity such as building a fence or designing a timber sale. A project may be a group of activities such as several timber sales or a timber sale and trail relocation. A project might be a programmatic analysis and decision such as a forest plan or an allotment management plan.

Project Leader reviews the Forest Plan Forest-wide and management area's specific standards and guidelines, Manual, Handbook, existing data bases, other pertinent direction, and plans and programs of other agencies which are applicable to the proposed project area. Consult the forest TE&S species list and if needed request TE&S lists from U.S. Fish and Wildlife Service and state agencies. Based on the forest plan, develop a brief written description of the desired or expected future condition of the land and resources in the project area.

Line Officers and their staffs familiarize themselves with the project planning area in preparation for Phase 2, Develop Project Concept. The influence area of the project should be defined in such a manner that a meaningful estimate of direct, indirect, and cumulative environmental effects can be made.

PRODUCTS OF PHASE

- Description of the decision made with responsible official identified.
- Notes on emphasis items from Forest Plan.
- Notes on project's potential contribution in meeting Forest Plan goals and objectives and other management direction.
- Description of the desired or expected future condition of land and resources with the project area.
- Lists of Threatened, Endangered, and Sensitive (TE&S) species

PHASE 2 - DEVELOP PROJECT CONCEPT AND SCOPE

PHASE OBJECTIVE

Determine precisely what this project will be designed to do and why.

NARRATIVE

Line Officer and staff develop the project concept. They identify and list the site specific project objectives, the specific project issues, the skills needed by the interdisciplinary team or consultants, and lists of affected or interested "publics".

If a person with a needed skill is not available on the line officer's staff, one should be invited to participate from another unit or from the public. This phase will serve to "set the tone" for this particular project.

Based on the products of Phase 1, the interdisciplinary team should develop project specific objectives. Project specific issues can then be identified.

Develop evaluation criteria based on the project specific objectives and issues. Evaluation criteria are factors that provide measurable or nonmeasurable information about the alternatives under consideration. Evaluation criteria are used to describe alternatives and to provide a measure of how well each alternative responds to a given issue or project objective. Identify which evaluation criteria will be used to evaluate cumulative effects.

Based on the nature of the decision, specific project objectives, and project issues, develop and describe alternative themes. An alternative theme describes the philosophy and emphasis of the alternative. All project objectives and issues should be specifically addressed in at least one alternative theme, but one alternative theme usually cannot address all objectives and issues. Keep in mind the need for a broad range of alternatives.

Make preliminary public contacts and begin design of a citizen's participation plan. The project record should be started here and be checked when a decision is made (Phase 9). Additions to the project record for Phases 11-13 will be accumulated later.

PRODUCTS OF PHASE

- List of project objectives--specific and unique.
- List of project specific issues.
- List of skills needed, including publics.
- List of potentially affected and interested publics.
- Project record file established.
- Notes on preliminary public contacts made.
- Notes on citizen's participation plan needs.
- List of preliminary evaluation criteria.
- List of other past, present, future projects contributing to potential cumulative effects.
- Description of alternative themes.
- List of potentially affected TE&S species.

PHASE 3 - CONDUCT EXTENSIVE RECONNAISSANCE

PHASE OBJECTIVE

Visit the project area. Conduct an overview reconnaissance with notes, resource information, maps, etc. compiled in Phases 1 and 2 to determine whether the project concept developed in Phase 2 will work. Determine additional information needed to complete Phases 4 and 6.

NARRATIVE

Items to be checked in the Field:

- Are project objectives complete?
- Are issues complete?
- Are additional skills necessary?
- Have all affected or interested publics been identified?
- Are there additional alternatives?
- Are evaluation criteria complete?
- Is the nature of the decision valid?
- Is the desired future condition valid?

Tools that are useful prior to and during extensive reconnaissance are aerial photos, orthophotos, contour maps, transportation plan, GIS, and appropriate resource surveys. Members of the public who expressed an interest during preliminary contacts during Phase 1 and 2 may be invited to go along on field trips.

PRODUCTS OF PHASE

-- Notes on verification, additions or changes to issues, interested publics, project objectives, evaluation criteria, or desired future condition.
-- Notes or maps on resource information, physical features, road conditions, R/W needs and any other special information that may be helpful during subsequent project phases.
-- Notes on technical, economic, and public feasibility.
-- Notes on public comments.
-- Notes on additional emerging alternatives.
-- Notes on intensive reconnaissance needs.
-- Notes on refinement of potentially affected TE&S list.

PHASE 4 - PREPARE FEASIBILITY REPORT

PHASE OBJECTIVE

Prepare a brief report demonstrating the proposed project's technical, economic, and public feasibility. Line officer decides whether or not to proceed based on report. Stop or redesign projects determined to be not feasible.

NARRATIVE

A Project Feasibility Report (PFR) (i.e., scoping report) is prepared as directed by the line officer. In timber sale planning, this report is called a "Position Statement". The report should be brief and concise and for most projects shouldn't exceed two pages. The PFR should record the results of scoping from the previous phases and serve as a decision document for making further project investments. Economics should play a role in the project feasibility determination. A major consideration of the project's feasibility is consistency with the Forest Plan's stated goals, objectives, standards and guidelines. If the project is not consistent with the Forest Plan, the project must be changed (go back to Phase 2) or the Forest Plan must be amended. The amendment will be formalized in Phase 9, but the determination of need to amend will be made here.

The PFR should answer the following questions as a test of project feasibility:

1. Technical Feasibility - Can this project be done with available skills and equipment?
2. Public Feasibility - Can sufficient agreement be obtained at reasonable expense from individuals and/or groups against the project?
3. Economic Feasibility - Is the project affordable? Do receipts and costs make good sense? Is the project concept the most efficient location and way to meet objectives and resolve issues?

PRODUCTS OF PHASE

Approved Project Feasibility Report. Items that should be included in report are:

- Description of the decision to be made.
- Identification of responsible official.
- Project location (map).
- List of project specific objectives.
- List of project specific issues.
- Description of alternative themes.
- List of evaluation criteria.
- Statement of Forest Plan consistency.
- Statement of technical feasibility, including special skills necessary.
- Statement of public feasibility including, cultural issues, concerns, and opportunities.
- Statement of economic feasibility, including outputs, effects, activities, receipts, and costs.
- Statement by Line Officer approving or disapproving feasibility report.

PHASE 5 - CHECK BUDGET LINK

PHASE OBJECTIVE

Ensure that project is scheduled and budgeted. Ensure citizen participation is planned.

NARRATIVE

Verify that project is on the Forest's 10-year Implementation Schedule and/or 1900-4's. Update Implementation Schedule or 1900-4's as needed.

Project leaders ensure that all interested parties, internal and external, are aware of the project schedule. Resource specialists and program managers interested in these projects must be informed of Implementation Schedule. Those interested in providing input into the project design should coordinate their schedules with the project leader. Project development tasks should be assigned with time lines for their completion.

The 10-year Implementation Schedule is a primary tool for keeping the public informed. Other schedules (e.g., 5-year Timber Sale Action Plan, Capital Investment Plans, etc.) should be incorporated into the 10-year Implementation Schedule.

Develop schedule of project design activities through Phase 8.

The detailed citizen's participation assessment and plan will be prepared at this phase.

PRODUCTS OF PHASE

- Updated project action plans.
- Updated Forest 10-year Implementation Schedule.
- Detailed citizen's participation plan.
- Schedule of project activities through Phase 8.

PHASE 6 - CONDUCT INTENSIVE RECONNAISSANCE, SURVEY, OR DESIGN

PHASE OBJECTIVE

Acquire specific on-the-ground knowledge of the project planning area and its resources to design a project that addresses the issues and project objectives.

NARRATIVE

Intensive reconnaissance is the most critical phase of project preparation. In this phase, sufficient on-the-ground knowledge is gained to design a project unique to its location, its objectives, and to interrelate the various resources which exist within the area. Themed alternatives from Phases 2 through 4 help focus the reconnaissance and data collected help further develop alternatives. Phases 6 and 7 are strongly related and are often combined in an iterative process that culminates in final alternatives.

During intensive reconnaissance, the project leader conducts an intensive field inspection to identify project design specifics. *All* site specific information, as defined by the evaluation criteria, needed for the project environmental analysis is collected during this phase (e.g., road location, cultural resource survey, TE&S species survey and biological evaluation (BE), fence location, problem soil areas, riparian areas, etc.). Inventory information which will be used to predict environmental effects in Phase 7 and monitor project results in Phase 13 should be identified and gathered.

If there are interested "publics" who are concerned about the effects or impacts of the project, a *field trip* to the project will usually help to resolve the conflict. It is an excellent technique for receiving site specific input from the public, for understanding their concerns, and for helping the interested parties understand the project more fully.

PRODUCTS OF PHASE

Note: This is not an exhaustive list of potential products from this phase, but rather, an idea list of products often resulting from this phase.

- Activity unit boundaries marked on-the-ground by topographic features, roads, streams or "flagged" lines sufficient enough so that they can be located. Resource input is recorded.
- Project transportation plan. Include right-of-way needs and Resource Access objectives.
- All needed roads are "flagged" with "control points" and "critical points" clearly identified and marked.
- Land lines needing surveying and posting identified.
- Cultural Resource survey completed and sites identified.
- Borrow pits or rock sources located.
- Notes on project monitoring needs.
- Notes on environmental effects.
- Revised issues, project objectives, and evaluation criteria, if necessary.
- TE&S species survey completed and documented

PHASE 7 - FINALIZE AND COMPARE ALTERNATIVES

PHASE OBJECTIVE

Ensure that a reasonable range of alternatives has been developed and compared.

NARRATIVE

There is no secret formula for the number of alternatives that should be considered. Alternatives for projects tiered to the Forest Plan EIS will be narrower in range than preplan alternatives. The "No Action" alternative *must* be considered in detail for *all* project environmental analysis as per the NEPA Handbook (FSH 1909.15, Chapter 20).

Modify alternatives or develop new alternatives when necessary as the analysis proceeds. Alternatives are used to evaluate different ways to resolve issues and meet project objectives. No one specific alternative will probably resolve all issues and/or achieve all objectives. Analysis teams should concentrate on producing a good range of alternatives that provides the deciding officers with the best possible choices. A specialist's job is to provide the range of choice and the line officer's job is to make the decision. Each job has different but equally important responsibilities.

Alternatives are developed beginning in Phase 2. This phase finalizes the alternatives considered and ensures that a reasonable range of alternatives was considered. Gaps in the range of alternatives are filled in. Alternatives generated earlier but dropped from consideration should be noted for inclusion in Phase 9 documentation. The alternatives are compared and evaluated at this phase. Using the evaluation criteria, the alternatives are fully described, evaluated, and compared. The evaluation criteria measure descriptive attributes and the environmental effects of the alternatives. The resource specialists provide the expertise to evaluate and interpret the alternatives using the evaluation criteria selected in Phases 2-4.

Continue informal consultation with U.S. Fish and Wildlife Service if biological evaluation (BE) shows a listed TE&S species may be affected.

PRODUCTS OF PHASE

- Descriptive evaluation criteria quantified for each alternative.
- Environmental and socioeconomic evaluation criteria quantified for each alternative.
- Cumulative effects quantified for identified other past, present, and future projects.
- Nonquantifiable evaluation criteria narratives for each alternative.
- Notes and rationale for whether or not identified environmental effects are significant (National Environmental Policy Act definition).
- TE&S Biological Evaluation (BE) for all alternatives.
- Notes on recommended course of action including environmental documentation.

PHASE 8 - SELECT PROPOSED ACTION

PHASE OBJECTIVES

Responsible Official selects alternative to be implemented and determines what NEPA documentation is appropriate.

NARRATIVE

This phase marks the completion of the "environmental analysis" portion of the NEPA process. An alternative to be implemented or a preferred alternative is selected by the appropriate line officer. The line officer may include instructions on how to modify or refine any or all of the previously conducted analysis, which will require recycling back to previously conducted phases.

Another important line officer role during this phase is to determine the appropriate level of NEPA documentation. Potential documentation products to be completed in Phase 9 include EA, FONSI, DN, DM, NOI, EIS, and ROD. If *no significant* environmental effects were discovered during the environmental analysis, it may be appropriate to categorically exclude the analysis from preparation of an EA or EIS. However, the decision on how to document is left to the line officer. Documentation in an EA or EIS may be appropriate for reasons other than NEPA compliance.

In some cases, where analysis and documentation are being done at a lower level, the responsible line officer may only decide on the level of documentation and ask for a preferred alternative from the project ID Team at this phase. The selected alternative may be the preferred alternative or a modification. Final selection of the alternative to be implemented would then occur in Phase 9 and be documented in the appropriate decision document. While this phase marks the completion of analysis, Phase 8 and Phase 9 can be blended together depending on how each Forest manages their process.

PRODUCTS OF PHASE

- Selected alternative to be implemented or a preferred alternative.
- Determination of what type of documentation is appropriate for Phase 9.

PHASE 9 - PREPARE NEPA DOCUMENTATION

PHASE OBJECTIVE

Complete environmental documentation as directed by line officer (Phase 8). Notify public of the decision and resolve any post decision public conflicts (eg., appeals, etc.).

NARRATIVE

Documentation should be prepared as directed in FSM 1950 and FSH 1909.15. The public must be notified of the decision to comply with NEPA and to clearly establish the "Date of Decision" for the administrative appeals process. Notification of the decision must be published in the newspaper selected by the deciding officer. The 45 day appeal period starts the day after the notice is published. Project implementation can occur seven days after decision notification appears in the paper.

Public concerns (eg., appeals) with the decision may result even though the public has fully participated throughout the previous 8 Phases. These concerns should be resolved by the deciding line officer. Appeals should be viewed as notice that prior citizen participation has not been complete. Sufficient "lead time" for accomplishment of Phases 1 thru 8 with citizen participation will facilitate resolving conflicts that may result during this phase. If conflicts can not be successfully resolved, follow standard appeal process procedures and time frames.

The project feasibility report from Phase 4 should provide the basis for the purpose and need section of the environmental document. The data and evaluation from Phase 7 should provide the data for the Alternatives and Environmental Consequences sections of the environmental document.

PRODUCTS OF PHASE

- -- Environmental documents EA, FONSI, EIS.
- -- Decision documents: DM, DN, ROD.
- -- Conflict resolution documentation or appeal decision if necessary.
- -- Public notification of Decision (letter, newspaper notice).
- -- Amended Forest Plan if needed.
- -- Amended Biological Evaluation if needed to reflect any changes to preferred or selected alternative.
- -- Formal consultation with U.S. Fish and Wildlife Service if listed TE&S species may be affected.

PHASE 10 - CHECK PROJECT RECORD

PHASE OBJECTIVE

Assure that all pertinent information concerning the project is in a single packet at one location for easy access. Incorporate project level information into the GIS and related databases.

NARRATIVE

The project record must be started in Phase 2. It should be stored in a single "packet" (may be a folder, drawer, box, notebook, binder, or whatever else you prefer that is commensurate with the volume of material). By Phase 10, this packet should contain such items as memos, notes, maps, photos, issues, project objectives, feasibility report, all site specific data, (including designs and summary forms from intensive reconnaissance), reports from supporting functions (e.g., transportation plan), clearances and consultation documents, and any environmental documentation.

The documents in the project record should be organized and numbered in chronological order, i.e., the oldest document in the file should be number 1, etc. An index of the documents should be started as soon as the record is started. The index should be maintained as documents are added to the record. A sample is shown in Appendix 20. This Phase should occur at the same time the NEPA documentation is prepared and executed (ie., Phase 9).

The project record provides the decision documentation in the appeals process. If the process record is complete and well organized as the project develops, meeting the 30 day requirement for submitting decision documentation to the review officer should not be difficult.

Final project design and data will be incorporated into the Forest GIS and related databases. The existing directives system may require some cross filing of certain types of documentation.

PRODUCTS OF PHASE

- -- A single project packet and index which includes *all* information pertinent to the project and supporting the final decisions made in earlier phases. Documents created after this phase should also be included as they become ready; therefore, room should be set aside for them.
- -- Digitized geographic information reflecting final project design incorporated in Forest GIS.
- -- Related resource databases updated to reflect final project design e.g., Stand file, RAMIS, etc.

PHASE 11 - PREPARE PROJECT ACTION PLAN

PHASE OBJECTIVE

Produce a work schedule for project implementation on the ground, specifying who does what, when, where, and how.

NARRATIVE

The project work plan (implementation plan) is assembled by gathering together all of the specific instructions necessary to carry out the project in the manner specified by the final decision. It should specifically designate who should accomplish each item and establish both the sequence and time frame for each activity.

PRODUCTS OF PHASE

- Final maps, photos, and designs.
- Final implementation guides and/or prescriptions.
- Specific schedule of all activities associated with the project (project work plan).
- Final clearances, licenses, permits, forms, etc.
- Post-project monitoring and evaluation schedule.
- Contract documents developed, if appropriate.
- Bid Openings accomplished.

PHASE 12 - IMPLEMENT PROJECT

PHASE OBJECTIVE

Accomplish the project in accord with the final decision.

NARRATIVE

This is the "do it" phase of any project. The design is "laid out" on the ground, final checks are made by the design team or responsible official, appraisals are completed, any necessary contracts are written and awarded, and/or the agency people accomplish the project along with any necessary protection of other resources. This is the move from the paper product to the ground.

In this phase, it often becomes apparent that certain tasks can be accomplished in a more cost effective manner than planned. Every effort should be taken to use the least costly method to accomplish project work, subject to all the provisions identified during the previous phases.

Project must be administered and monitored as it is executed. Small changes in project design may be necessary to reduce impacts, cope with unforseen events, etc. Changes in project design should be documented "as built" for the project record.

PRODUCT OF PHASE

- Awarded Contracts if needed.
- Completed project with appropriate project administration.
- Resource objectives met.
- Forest Plan implemented.
- Project design amended as needed.
- Project "as built" description, maps, etc.

PHASE 13 - MONITOR AND EVALUATE RESULTS

PHASE OBJECTIVE

Monitor and evaluate project implementation to determine whether the project design is meeting project and Forest Plan resource objectives.

NARRATIVE

First, as the project is proceeding, monitor implementation to ensure the project is being done according to design standards. It is not reasonable to assume the original project design will be perfect. Implementation must be monitored to ensure that project designs are adjusted when on-the-ground conditions warrant (eg., finding a previously unknown spotted owl territory or cultural resource site).

Second, after a successful project design using this process is accomplished, the recycling of knowledge concerning "what works and what doesn't work" should be done. Professionals have an obligation to continually reassess successes and failures to improve project designs. A review of project activities, costs, outputs, effects, and receipts should be included. Internal information sharing concerning project design is vital to provide quality on the ground management. The public must be given the facts, even if they sometimes reflect failures. However, the more that is learned about project design, the less likely there will be future failures.

Two basic questions must be answered when monitoring projects. The first question is "did the project get implemented as designed by the IDT?" (i.e., Implementation Monitoring). Secondly, "did the project affect the desired results" (Effectiveness Monitoring). Implementation monitoring should be accomplished on all of the projects by the Ranger District with some of the projects selected for the Supervisor's Office oversight. Effectiveness monitoring should be conducted with Supervisor's oversight on a randomly selected number of projects (5-10%).

Monitoring to evaluate changes needed to obtain the results we want is called Validation monitoring. Monitoring of this type should be coordinated through the Regional Office and most often will be accomplished through research.

An additional benefit of monitoring is better definition of *significance of environmental effects* (NEPA definition). Better understanding of what constitutes a significant effect will reduce the need for NEPA documents and give the deciding officer additional information on whether to "categorically exclude" project documentation or to prepare an environmental document (Phase 8 decision). This information will also aid in improving future environmental analysis that is *required* for every project proposal.

Final project design data will be verified and GIS and related databases updated.

PRODUCT OF PHASE

- -- PROJECT MONITORING REPORT that provides documentation of project design results. Line officers should monitor projects each year using an interdisciplinary review approach as scheduled in Phase 11.
- -- Updated 10-year Implementation Schedule showing project accomplished.
- -- Updated GIS and related databases.
- -- Forest Plan monitoring information.

COMPRESSED PROJECT IMPLEMENTATION

PROCESS FOR SMALL PROJECTS

COMPRESSED PROJECT IMPLEMENTATION PROCESS FOR SMALL PROJECTS

Many of the projects that the Forest Service implements are routine administrative and maintenance actions that normally do not have a significant effect on the quality of the human environment (40 CFR 1508.22). The Secretary of Agriculture (7 CFR 1b.3) and the Chief of the Forest Service (Forest Service Handbook FSH 1909.15) have described categories of action where documentation in an Environmental Assessment or Environmental Impact Statement is not required (i.e., categorical exclusions, CE's). A "compressed" approach to IRM is appropriate for projects that logically fit within one of the categories described by the Secretary of Agriculture or the Chief.

For small projects, NEPA scoping and analysis and continued work with the public and cooperators are required. The responsibility for determining that a specific project will have no significant environmental effects still exists. The following process facilitates small project design and still meets the requirements of NEPA and NFMA.

PHASE 1 - DEFINE NATURE OF DECISION AND REVIEW FOREST PLAN

Project leader reviews the Forest Plan, Manual, Handbooks, existing databases, and other pertinent direction which are applicable to the proposed project area. Line officer and staff describe the "nature of the decision" to be made and familiarize themselves with the project planning area. The influence area of the project should be defined in such a manner that meaningful estimates of environmental effects can be made. Initial public and cooperator contacts should be made. This phase marks the beginning of project scoping (NEPA definition).

Products: Nature of Decision Description; responsible official identified; notes from Forest Plan, Manual, etc. review; notes on initial public/cooperator contacts made; notes on possible TE&S species.

PHASE 2 - DEVELOP PROJECT CONCEPT

Line officer and staff develop project concept. They identify and list site-specific issues, project objectives, potential alternatives, project's Forest Plan consistency, and continue necessary public/cooperator contacts. Project leader establishes and maintains a chronological project record of IRM products.

Products: List of issues, list of project objectives, Forest Plan consistency determination, list of alternatives considered with summarized discussion of environmental effects, notes on additional public contacts, notes on monitoring needs, list of potentially affected TE&S species or notes that none are present.

PHASE 3 - RECONNAISSANCE/EVALUATION

Line officer and staff validate the products developed from Phases 1 and 2 with a project site visit. Items to be checked in the field: Are issues complete? Can project objectives be met? Are there other alternatives that need consideration? Are there other public/cooperator contacts needed? What activities need to be monitored? Reconnaissance group should review the project's anticipated environmental effects to determine if a categorical exclusion (CE) is appropriate. If a CE is not appropriate, move to Phase 4 of the standard IRM process description. If a CE is appropriate, continue on in the "compressed" process. Line officer decides if project is a "go or a no go".

Products: Notes from reconnaissance trip: validation of issues, validation of project objectives, assessment of alternatives, validation of public/cooperator contacts, determination of CE applicability, project "go or no go" decision, notes on presence of TE&S species and anticipated effects.

PHASES 4 THRU 8 - COMBINED IN PREVIOUS PHASE

PHASE 9 - PREPARE NEPA DOCUMENTATION

Line officer determines whether a Decision Memo is required by reviewing FSH 1909.15. At a minimum, the people contacted during the process should be mailed a copy of the Decision Memo, called on the phone, etc. Notification of the decision must be published in the newspaper selected by the deciding line officer. Implementation can occur seven days after the decision notification appears in the paper. However, it may be prudent to delay implementation until the appeal period is exhausted if any controversy is anticipated.

Product: If a Decision Memo is prepared, the products are: Copy of the Decision Memo, Copy of published decision notification, list of people notified of decision.

PHASE 10 - CHECK PROCESS RECORD

Process record is checked for content and organization. A project file is required for all projects for which a Decision Memo has been issued. The record should be organized in chronological order (i.e., the oldest document is number 1). Generally, the content requirements will be satisfied if the products of the previous phases are collected into the file.

Products: Organized project file when Decision Memo is issued.

PHASES 11 THRU 13 ARE THE SAME AS DESCRIBED IN THE STANDARD IRM PROCESS

APPENDIX 1

HELPFUL HINTS
PROCESS MANAGEMENT TIPS

For larger projects consider using a nonsubject matter facilitator and recorder to manage the process. It is very hard for a subject matter expert to be team leader, provide specialist input, facilitate and record an interdisciplinary team meeting, and manage the IRM process all at once. Use of a facilitator and recorder allows the team leader to concentrate on substantive input in the analysis. The Integrated Resource Management teaching cadre is available for facilitator/recorder duty upon request.

Concentrate interdisciplinary effort on the first three phases to get the process on track early. Hammer out the nature of decision, specific objectives, issues, evaluation criteria, and alternative themes. Once these items have been agreed upon and checked in the field, team members can work independently to make their inventories and evaluations. There should be little need for additional team meetings until Phase 7. Getting the project started right will make the interdisciplinary team work more effective and efficient.

Keep in mind that the process and guidebook are not a cookbook or rule book. The process descriptions are guidelines for a logical thought process and should be tailored to fit the needs of each project. The same logic applies to all projects. However, analysis of some projects may require a period of years to complete and others may require only a matter of hours or minutes.

Take the product's lists literally. The process envisions building a final product as the team works through the phases. For example, notes on issues become a list which goes into the feasibility report which becomes the purpose and need section in the environmental document.

Build and index the project record as the analysis proceeds. Number each document in the record chronologically from oldest to newest.

The environmental document should be prepared by one or two people that have good writing skills. The environmental document should be a summary of the process record and include only the salient data and evaluations. Use copious referencing rather than copious details.

The nature of the decision, desired future condition, specific objectives, issues, and evaluation criteria define the scope of the project. These are the elements to be described in the environmental document. There should be a direct link between issues and objectives, evaluation criteria, and alternatives to environmental effects.

Suggested format for environmental documents would be Chapter 1 - Purpose and Need; Chapter 2 - Alternative Description and Comparison; and Chapter 3 - Effected Environment and Environmental Consequences. An EA also needs a discussion of people and agencies contacted and how input was used. An EIS requires additional Chapters such as lists of preparers, mailing lists, etc.

Evaluation criteria are of two types. Some criteria measure descriptive characteristics of the alternatives such as board feet, miles of road, etc. These things would appear in Chapter 2. Some criteria measure environmental effects such as tons of sediment, age class, habitat capability, etc. These things would appear in Chapter 3.

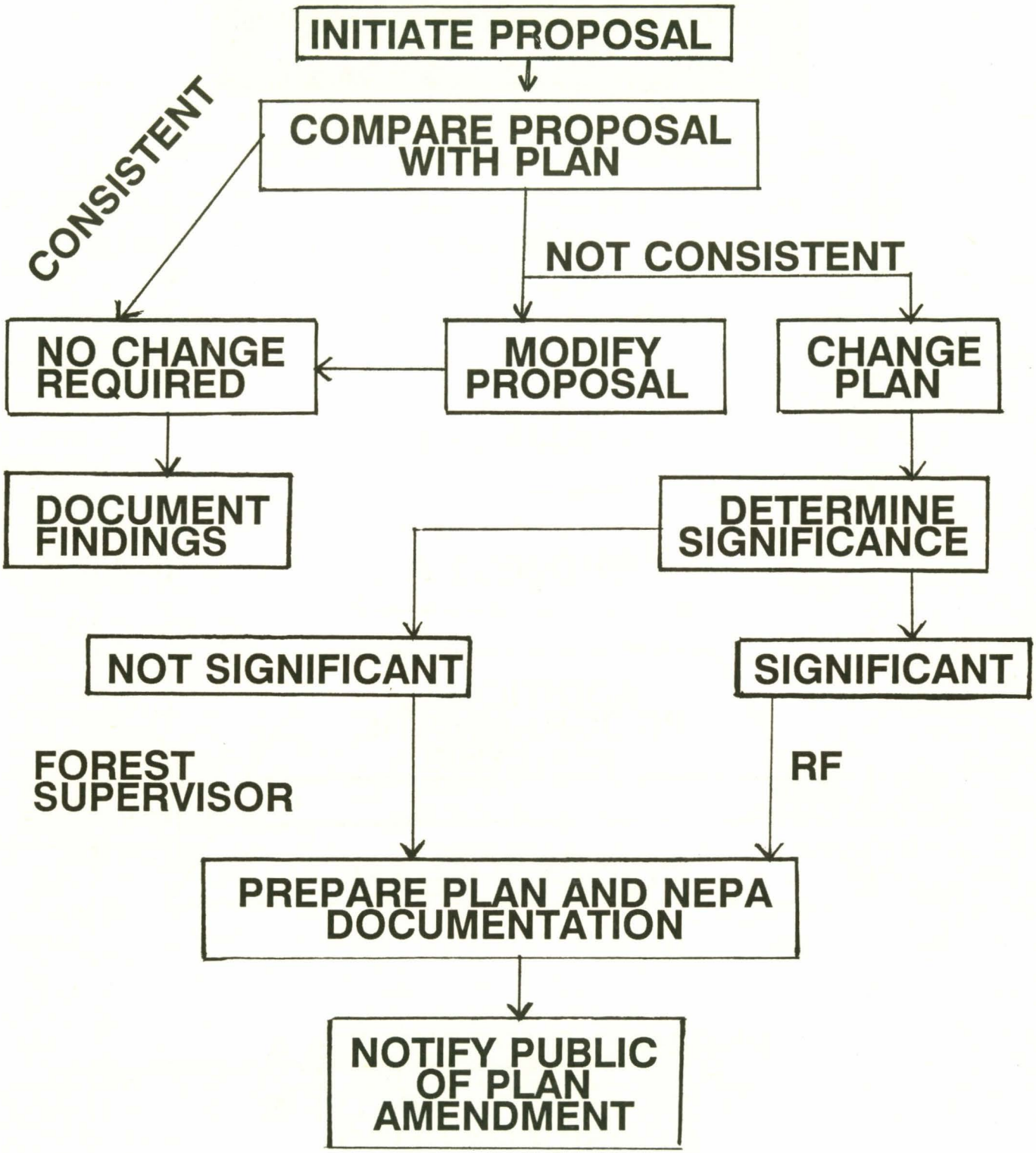
Line officers can be most effective if they participate in defining the decision, issues, objectives, alternatives, and evaluation criteria. Line officer guidance in the first 4 phases will help get the project analysis on the right track. Phase 8 is the next crucial place for line officer involvement. It is recommended that ID teams not be asked to select a preferred alternative. ID teams should make a presentation to the line officer that displays the evaluation of alternatives. The line officer would then select the preferred alternative and specify documentation.

APPENDIX 2

ROLES AND RESPONSIBILITIES

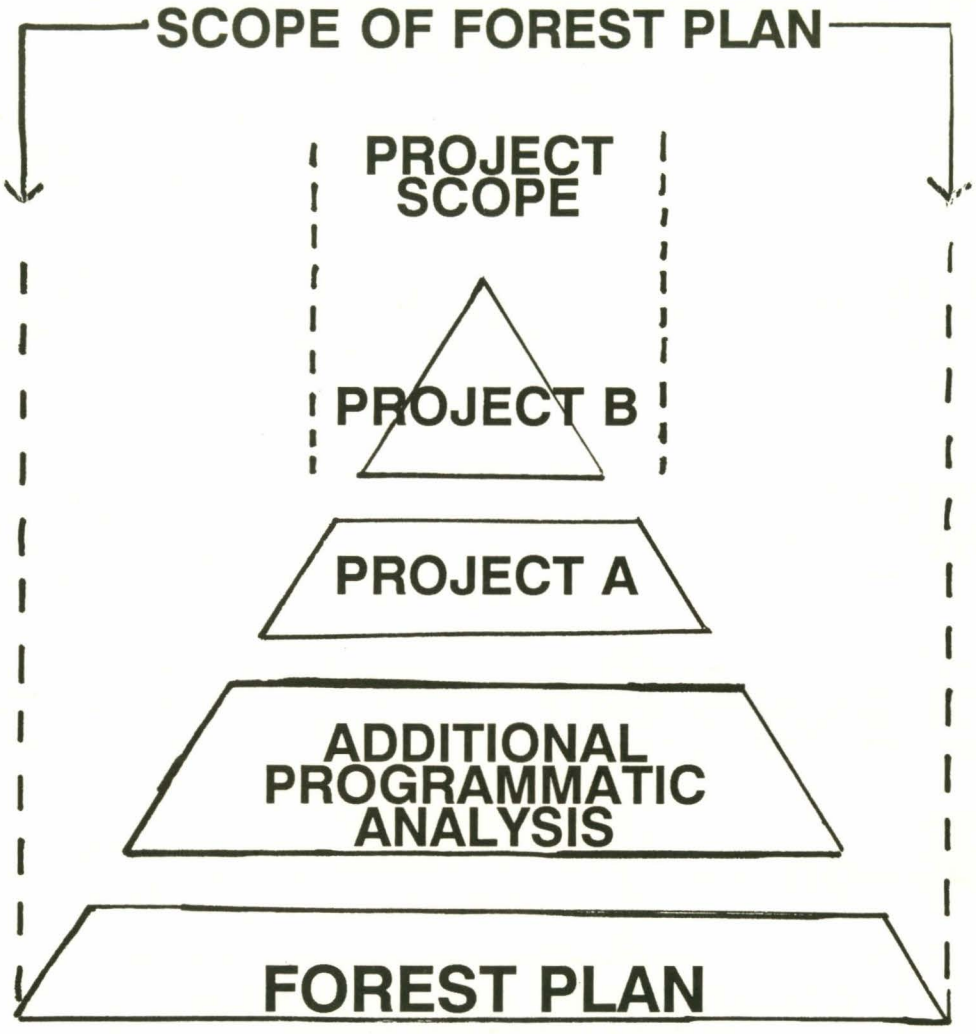
PHASE	PROJECT LEADER	SUPPORT STAFF	LINE OFFICER	PUBLIC
1	Provide background data, information; review direction	Review direction, public contacts, background data	Describe decision and responsible official	Input
2	Manage process; facilitate interaction and discussion	Identify specific objectives, issues, public contacts, alternatives		Assist and provide input
3	Conduct field review	Review field condition;, adjust Phase 2 products, as needed		Assistance and input
4	Prepare project feasibility report		Decide to proceed or not; approve or modify feasibility report	Review
5	Check implementation schedules and 1900-4's	Assist	Approve changes if needed	Review
6	Coordinate staff input, field visits, reports; direct staff to specific areas of concern	Conduct site-specific inventories and evaluations; identify sensitive sites; prepare specialist reports	Monitor	Input, review, monitor
7	Coordinate staff evaluations; check range of alternatives	Compare and evaluate alternative; describe and determine significance of environmental effects	Monitor	Input, monitor
8	Present evaluations	Support, input	Select alternative; approve adequacy of analysis; select form of cumentation	
9	Prepare environmental document;pProvide public notice of decision	Support, input	Sign decision document; resolve appeals, conflicts	Review appeal
10	Organize and index project record			
11	Complete final design, documents, contacts, licenses, etc.; schedule remaining activities; schedule monitoring	Input, assist	Approve work schedule	Monitor
12	Supervise implementation; monitor process	Input, assist	Approve work schedule	Monitor
13	Coordinate field reviews; prepare monitoring documentation	Input, assist, evaluate	Monitor, Approve changes in practice, if needed	Input, assist, evaluate

APPENDIX 3
PLAN CHANGE PROCESS



APPENDIX 4

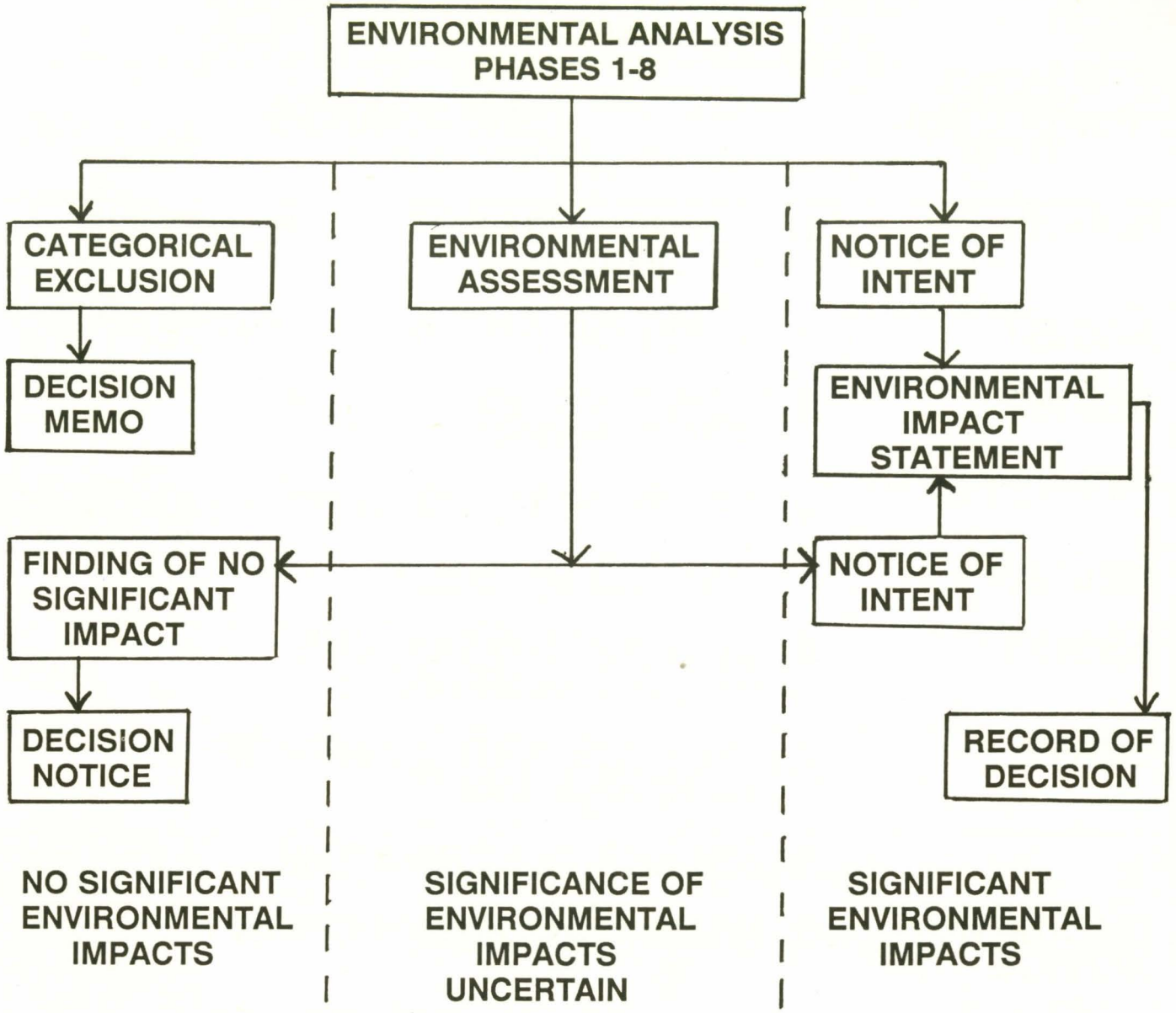
TIERING PROJECTS TO THE FOREST PLAN



PYRAMID REPRESENTS A CHAIN OF ANALYSIS TO FOCUS ON SITE SPECIFIC CONSIDERATIONS

APPENDIX 5

DOCUMENTATION CHOICES



APPENDIX 6

PUBLIC INVOLVEMENT PROCESS

CITIZEN PARTICIPATION	IRM PHASES
INPUT	1. REVIEW FOREST PLAN, DEFINE DECISION
ASSIST	2. DEVELOP PROJECT CONCEPT
ASSIST	3. CONDUCT EXTENSIVE RECONNAISSANCE
	4. PREPARE FEASIBILITY STATEMENT
REVIEW	5. LINK TO BUDGET
ASSIST	6. CONDUCT INTENSIVE RECONNAISSANCE
INPUT	7. FINALIZE AND COMPARE ALTERNATIVES
	8. SELECT ALTERNATIVE
DECISION NOTICE	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
MONITOR	11. PROJECT ACTION PLAN
MONITOR	12. IMPLEMENT PROJECT
EVALUATE	13. MONITOR AND EVALUATE

APPENDIX 7

LINE OFFICER INVOLVEMENT

DECISION PROCESS	IRM PHASES
DESCRIBE	1. REVIEW FOREST PLAN, DEFINE DECISION
DEVELOP PROJECT OBJECTIVES	2. DEVELOP PROJECT CONCEPT
	3. CONDUCT EXTENSIVE RECONNAISSANCE
DECISION TO PROCEED	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
INPUT	6. CONDUCT INTENSIVE RECONNAISSANCE
	7. FINALIZE AND COMPARE ALTERNATIVES
GO/NO GO	8. SELECT ALTERNATIVE
TYPE/ APPROVAL	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
MONITOR	11. PROJECT ACTION PLAN
AUTHORITY	12. IMPLEMENT PROJECT
MONITOR/ EVALUATE	13. MONITOR AND EVALUATE

APPENDIX 8

INTERFACE CHART - GIS

GIS PROCESS	IRM PHASES
GATHER MAPS & DATA	1. REVIEW FOREST PLAN, DEFINE DECISION
INFO NEEDS	2. DEVELOP PROJECT CONCEPT
FIELD VERIFY INFO NEEDS	3. CONDUCT EXTENSIVE RECONNAISSANCE
	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
GATHER SITE SPECIFIC DATA	6. CONDUCT INTENSIVE RECONNAISSANCE
DATA ANALYSIS OVERLAYS, ETC	7. FINALIZE AND COMPARE ALTERNATIVES
	8. SELECT ALTERNATIVE
DRAW MAPS	9. NEPA DOCUMENTATION
UPDATE GIS	10. CHECK PROJECT RECORD
	11. PROJECT ACTION PLAN
	12. IMPLEMENT PROJECT
TRACK RESULTS	13. MONITOR AND EVALUATE

APPENDIX 9

INTERFACE CHART - ARCHEOLOGY

CLEARANCE PROCESS	IRM PHASES
CULTURAL RESOURCE OVERVIEW	1. REVIEW FOREST PLAN, DEFINE DECISION
SITE ATLAS	2. DEVELOP PROJECT CONCEPT 3. CONDUCT EXTENSIVE RECONNAISSANCE
	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
SITE SURVEY	6. CONDUCT INTENSIVE RECONNAISSANCE
SHPO RECOMMENDA-TION	7. FINALIZE AND COMPARE ALTERNATIVES
SHPO CONCURRANCE	8. SELECT ALTERNATIVE
CLEARANCE	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
MONITOR	11. PROJECT ACTION PLAN
REVIEW	12. IMPLEMENT PROJECT
EVALUATE	13. MONITOR AND EVALUATE

APPENDIX 10

INTERFACE CHART - VISUAL RESOURCE

VISUAL RESOURCE INPUT	IRM PHASES
DETERMINE VQO IN PROJECT	1. REVIEW FOREST PLAN, DEFINE DECISION
REFINE VQO	2. DEVELOP PROJECT CONCEPT
ASSESS VISUAL SENSITIVITY	3. CONDUCT EXTENSIVE RECONNAISSANCE
INPUT	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
DEVINE EVQ DVQ VAC	6. CONDUCT INTENSIVE RECONNAISSANCE
PREDICT EFFECTS	7. FINALIZE AND COMPARE ALTERNATIVES
INPUT	8. SELECT ALTERNATIVE
INPUT	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
	11. PROJECT ACTION PLAN
INSPECT	12. IMPLEMENT PROJECT
MONITOR	13. MONITOR AND EVALUATE

APPENDIX 11

INTERFACE CHART - SILVICULTURE

SILVICULTURAL PROCESS	IRM PHASES
	1. REVIEW FOREST PLAN, DEFINE DECISION
STAND EXAMS	2. DEVELOP PROJECT CONCEPT
STAND DIAGNOSES	3. CONDUCT EXTENSIVE RECONNAISSANCE 4. PREPARE FEASIBILITY STATEMENT 5. LINK TO BUDGET
PROPOSED RX'S	6. CONDUCT INTENSIVE RECONNAISSANCE
ALTERNATIVE RX'S	7. FINALIZE AND COMPARE ALTERNATIVES
DETAILED RX	8. SELECT ALTERNATIVE 9. NEPA DOCUMENTATION 10. CHECK PROJECT RECORD
MARKING	11. PROJECT ACTION PLAN
REVIEW	12. IMPLEMENT PROJECT
MONITOR/ EVALUATE	13. MONITOR AND EVALUATE

APPENDIX 12

INTERFACE CHART - PESTICIDE USE

PESTICIDE PROCESS	IRM PHASES
OK UNDER S&G'S?	1. REVIEW FOREST PLAN, DEFINE DECISION
HEALTH ICO'S	2. DEVELOP PROJECT CONCEPT
WATER, T&E RESIDENCES	3. CONDUCT EXTENSIVE RECONNAISSANCE
PEST USE REPORT FS 2100-2	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
RISK ASSESSMENT	6. CONDUCT INTENSIVE RECONNAISSANCE
WITH & W/O PESTICIDE	7. FINALIZE AND COMPARE ALTERNATIVES
	8. SELECT ALTERNATIVE
	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
	11. PROJECT ACTION PLAN
CERT APPLICATOR	12. IMPLEMENT PROJECT
MONITOR	13. MONITOR AND EVALUATE

APPENDIX 13

INTERFACE CHART - MINING CLAIMS

OPERATION PLAN REVIEW PROCESS	IRM PHASES
OPEN OR WITHDRAWN?	1. REVIEW FOREST PLAN, DEFINE DECISION
OP PLAN	2. DEVELOP PROJECT CONCEPT
	3. CONDUCT EXTENSIVE RECONNAISSANCE
	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
VISIT AREA CLEARANCES T&E, CUL RES, REVISE OP PLAN, STATUTORY RIGHTS, RECLAMA NEEDS	6. CONDUCT INTENSIVE RECONNAISSANCE 7. FINALIZE AND COMPARE ALTERNATIVES
	8. SELECT ALTERNATIVE
	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
	11. PROJECT ACTION PLAN
INSPECT	12. IMPLEMENT PROJECT
MONITOR	13. MONITOR AND EVALUATE

APPENDIX 14

MINERAL LEASES

LEASE REVIEW PROCESS	IRM PHASES
OPEN/CLOSED STIPULATIONS	1. REVIEW FOREST PLAN, DEFINE DECISION
CHECK WITH BLM	2. DEVELOP PROJECT CONCEPT
	3. CONDUCT EXTENSIVE RECONNAISSANCE
	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
VISIT AREA	6. CONDUCT INTENSIVE RECONNAISSANCE
EFFECT, NEW STIP REVISE STIPS	7. FINALIZE AND COMPARE ALTERNATIVES
	8. SELECT ALTERNATIVE
REC/DECISION TO BLM	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
NO LEASE = END PROJECT	11. PROJECT ACTION PLAN
LEASE=GO TO APD PROCESS	12. IMPLEMENT PROJECT
MONITOR	13. MONITOR AND EVALUATE

APPENDIX 15

INTERFACE CHART - TE&S SPECIES

CONSULTATION PROCESS	IRM PHASES
CHECK SP LISTS, GET USFW'S LIST	1. REVIEW FOREST PLAN, DEFINE DECISION
ID POTENTIAL, AFFECTED SPECIES, ISSUES	2. DEVELOP PROJECT CONCEPT
REFINE SP LIST	3. CONDUCT EXTENSIVE RECONNAISSANCE
	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
TE&S SURVEYS, CONT INFORMAL CONSULTATION	6. CONDUCT INTENSIVE RECONNAISSANCE
EST EFFECTS, BIO EVAL	7. FINALIZE AND COMPARE ALTERNATIVES
	8. SELECT ALTERNATIVE
START FORMAL CONSULTATION, AMEND BIO EVAL	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
INPUT	11. PROJECT ACTION PLAN
	12. IMPLEMENT PROJECT
MONITOR	13. MONITOR AND EVALUATE

APPENDIX 16

INTERFACE CHART - RECREATION CONSTRUCTION

CONSTRUCTION PROCESS	IRM PHASES
	1. REVIEW FOREST PLAN, DEFINE DECISION
	2. DEVELOP PROJECT CONCEPT
	3. CONDUCT EXTENSIVE RECONNAISSANCE
	4. PREPARE FEASIBILITY STATEMENT
DESIGN NARRATIVE, FEASIBILITY REPORT	5. LINK TO BUDGET
SITE SURVEY	6. CONDUCT INTENSIVE RECONNAISSANCE
	7. FINALIZE AND COMPARE ALTERNATIVES
SITE CONCEPT PLAN	8. SELECT ALTERNATIVE
	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
SITE DEV PLAN SPECS, CONTRACT	11. PROJECT ACTION PLAN
CONT ADMIN CONST SUPPORT	12. IMPLEMENT PROJECT
AS BUILT	13. MONITOR AND EVALUATE

APPENDIX 17

INTERFACE CHART - ROAD DEVELOPMENT

DEVELOPMENT PROCESS	IRM PHASES
	1. REVIEW FOREST PLAN, DEFINE DECISION
IDENTIFY ROAD MGMT OBJECTIVES	2. DEVELOP PROJECT CONCEPT
	3. CONDUCT EXTENSIVE RECONNAISSANCE
APPROVE ROAD MGMT OBJECTIVES	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
FLAG LOCATION CORRIDORS	6. CONDUCT INTENSIVE RECONNAISSANCE
	7. FINALIZE AND COMPARE ALTERNATIVES
DESIGN ELEMENTS	8. SELECT ALTERNATIVE
	9. NEPA DOCUMENTATION
APPROVE DESIGN STANDARDS	10. CHECK PROJECT RECORD
PRECONST PROCESS	11. PROJECT ACTION PLAN
CONTRACT ADMIN	12. IMPLEMENT PROJECT
CONST REPORT	13. MONITOR AND EVALUATE

APPENDIX 18

INTERFACE CHART - RESOURCE ACC/TVL MGMT

RES ACC/TVL MGMT PROCESS	IRM PHASES
REV RES ACC/TVL MGMT PROCESS	1. REVIEW FOREST PLAN, DEFINE DECISION
IDENTIFY EVAL AREA	2. DEVELOP PROJECT CONCEPT
REV EXIST DATA, MAPS, TIS, ETC	3. CONDUCT EXTENSIVE RECONNAISSANCE
COMPLETE WORK SHEETS	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
MODIFY WORK SHEETS	6. CONDUCT INTENSIVE RECONNAISSANCE
	7. FINALIZE AND COMPARE ALTERNATIVES
RANGER APPROVE WORK SHEETS	8. SELECT ALTERNATIVE
	9. NEPA DOCUMENTATION
MAPS AND TIS	10. CHECK PROJECT RECORD
	11. PROJECT ACTION PLAN
	12. IMPLEMENT PROJECT
	13. MONITOR AND EVALUATE

APPENDIX 19

INTERFACE CHART - BMP

BMP PROCESS	IRM PHASES
WATER QUALITY OBJECTIVES	1. REVIEW FOREST PLAN, DEFINE DECISION
WATER ICO'S	2. DEVELOP PROJECT CONCEPT
FIELD VERIFY WATER COND, POTENT IMPACT	3. CONDUCT EXTENSIVE RECONNAISSANCE
	4. PREPARE FEASIBILITY STATEMENT
	5. LINK TO BUDGET
	6. CONDUCT INTENSIVE RECONNAISSANCE
GATHER WATER DATA ON/OFF SITE	7. FINALIZE AND COMPARE ALTERNATIVES
	8. SELECT ALTERNATIVE
DESCRIBE BMP'S	9. NEPA DOCUMENTATION
	10. CHECK PROJECT RECORD
ENSURE BPM'S IN DESIGN, CONTRACT, WORK PLAN	11. PROJECT ACTION PLAN
	12. IMPLEMENT PROJECT
MONITOR	13. MONITOR AND EVALUATE

APPENDIX 20

PROCESS RECORD INDEX EXAMPLE

Process Record Index and References

The following is a complete index of the documentation in the project file and provides the basis for this evironmental document. This list is referenced throughout the text of this document with reference numbers in parenthesis following the appropriate text.

Document Number	Document Description	Document Originator	Document Date
1.	Memo-Schedule inital IDT meeting	Dunham	02/16/89
2.	Memo-Preliminary ICO's, objectives	Dunham	03/17/89
3.	Notes-Phase 3 Recon trip notes	IDT	03/31/89
4.	Report-Final Feasibility Report	IDT	04/08/89
5.	Memo-Approval of Feasibilty Report	Dahl	04/23/89
6.	Schedule-Updated budget proposal, 1900-4's, project completion track	Dunham	05/06/89
7.	Memo-IDT meeting notes-alternative development, intensive recon schedule	Dunham	05/14/89
8.	Letter-Request to Zuni Tribe for information on religious sites	Gardner	05/21/89
9.	Memo-Status of analysis, recon to ranger	IDT	07/16/89
10.	Letter-Request USFWS information on onion	IDT	07/23/89
11.	Report-Soils report on assessment area	Souders	09/15/89
12.	Report-Preliminary Biological Evaluation	Romero	09/15/89
13.	Letter-Correspondence with Wilderness Society (spotted owl information)	Romero	09/27/89
14.	Report-Archaeological Clearance (borrow pits only)	Dahl	10/13/89
15.	Letter-More input from USFWS-TE&S species	USFWS	10/27/89
16.	Note-Jobs remaining to be done	Dunham	11/05/89
17.	Memo-Ranger requests preliminary analysis information by January 15, 1990	Gardner	11/15/89

APPENDIX 21

EVALUATION CRITERIA

Evaluation criteria are factors that provide objective measurable or nonmeasurable information about the alternatives under consideration. There are two basic classes of evaluation criteria. Some criteria are needed to ***describe*** alternatives and some are needed to ***disclose*** environmental effects. Both are helpful in measuring how well an alternative responds to project issues and objectives. Evaluation criteria are used by the resource specialists in environmental analysis and documentation and should not be confused with decision criteria used by the line officers to select a course of action. Line officers add value judgements like "this alternative is best" or "this alternative doesn't do as well as." Criteria used by the specialists to evaluate alternatives should be as objective as possible and not contain value judgements.

Descriptive criteria usually are displayed in the "Alternatives" section of environmental documents. Being merely descriptive, these criteria can easily be displayed in a table and normally do not require any specialist interpretation. In essence, these criteria are objective facts that describe characteristics of the alternatives.

Disclosure criteria provide a measure of the environmental and socio-economic effects of the alternatives. Quantified evaluation criteria can be easily displayed in individual environmental effects sections; however, almost always these criteria require a narrative interpretation. A discussion of the significance of the effect is particulariy important. These criteria appear in the "Affected Environment and Environmental Consequence" sections of the environmental document. In Region III, these two sections are normally combined into *one* chapter in the documentation.

Examples of Criteria

Descriptive	*Disclosure*
Logging Method (acres)	Vegetation Age Classes (acres/by age)
Timber Volume (MMBF)	Old Growth Harvested (acres)
Unroaded Area (acres)	Overstory Cover (percent)
Semi-primitive Area (acres)	Financial (Present Net Value dollars)
Road Construction (miles)	Snags (numbers/acre)
Road Closures (miles)	Habitat Capability (percent)
Fuel Treatment (acres/type)	Spotted Owl Core Affected (acres)
Water Developments (numbers)	Water Yield (acre feet/year)
Broadcast Burns (acres)	Stream Crossings (numbers)
Turkey Nest Piles (numbers)	Soil Loss (tons/year)

In IRM Phase 2, the IDT must carefully select the needed criteria. These criteria describe the data to be collected in Phase 6 that will form the basis for the description, disclosure of effects, and evaluation of alternatives in Phase 7. The criteria are one of the parameters that affect the "SCOPE" of the analysis and, therefore, require line officer approval in Phase 4 reports.

APPENDIX 22

ECONOMICS IN IRM

Economics plays a key role in three IRM phases: Phase 4-Project Feasibility, Phase 7-Evaluate Alternatives, and Phase 13-Monitoring. Because of current high profile issues like below-cost timber sales, economics will usually be listed among the issues raised in Phase 2-Project Concept.

Economics in project analysis can take on several meanings. The most common subjects, related issues, and measures are shown below:

Subjects	Related Issues	Measures
Budget	Affordability	FS budget costs
Financial/Taxpayer	Below-cost timber sales	Present value of gov't revenues & costs
Purchaser/Permittee	Deficit timber sales	2nd party revenues, costs, profits
Efficiency	Wise use of resources and $'s	Net revenue or cost to meet objectives
Local Impact	Community dependence/stability	Jobs, income

All of these can be important for a project decision and easily addressed in Phases 4 and 7. One available tool for this is the Timber Sale Financial Analysis spreadsheet. It can address all the subjects listed except local impacts. A separate spreadsheet is available to estimate local economic impacts of timber sales. These tools were developed with the district pre-sale forester in mind. Financial spreadsheet applications to projects other than timber sales can be made. Contact the economists in PD&B for details.

Economic measures as evaluation criteria are often misused. Some decision makers attribute sole justification of a project to economics, effectively making economics the only decision criterion. Other decision makers completely ignore economics as an decision criterion. Both extremes abuse the contribution that economics can make in improving project decisions.

Economics should be a vital part of monitoring. With the implementation of TSPIRS, development of All Resource Reporting, and emphasis on "charge as worked", monitoring of program revenues and costs is becoming more important. These systems can aid the financial aspect of project monitoring, as well. Work with your B&F officer to develop useful management codes and then "charge as worked". This financial information plus a record of actual outputs and effects can provide sufficient data for a reasonable economic monitoring of projects. The same tools identified above for Phases 4 and 7 could be used in Phase 13. Assistance from PD&B and LMP in the RO is available upon request.

GLOSSARY

AMP ALLOTMENT MANAGEMENT PLANS.

ASQ ALLOWABLE SALE QUANTITY - The maximum amount of timber volume that can be harvested during the 10 year Forest Plan life.

BMP BEST MANAGEMENT PRACTICES - Actions adopted to eliminate, reduce, or minimize environmental effects from management activities.

CE CATEGORICAL EXCLUSION - The act of excluding an environmental analysis from being documented in an EA or EIS because no significant environmental effects were predicted.

CEQ COUNCIL ON ENVIRONMENTAL QUALITY.

CPP CITIZENS PARTICIPATION PLAN - A detailed activity schedule that identifies potentially effected interests and identifies techniques for involving them in project design to achieve informed consent.

COR CONTRACTING OFFICERS REPRESENTATIVE - Official responsible for on-the-ground supervision of work contracted by the government.

CP CITIZENS PARTICIPATION - The activity to get all citizens interested or effected by the project involved early in project design so that informed consent is achieved.

DG DATA GENERAL - Forest Service computer system.

DM DECISION MEMO - A decision document that is prepared when projects are categorically excluded from preparation of an EA or EIS. A DM documents the rationale for the project and the project's exclusion from documentation.

DN DECISION NOTICE - The decision document that accompanies an EA and FONSI documenting the rationale for the decision.

EA ENVIRONMENTAL ASSESSMENT - A report that documents the analysis and the determination of whether or not to prepare an environmental impact statement.

EIS ENVIRONMENTAL IMPACT STATEMENT - A document or set of documents prepared for projects having significant environmental effects that disclose the effects of the project and alternatives.

EVALUATION CRITERIA
Factors that provide objective measurable or nonmeasurable information about the alternatives under consideration. Evaluation criteria provide a measure of how well each alternative responds to a given issue or opportunity and to project objectives.

FONSI FINDING OF NO SIGNIFICANT IMPACT - A brief document that accompanies an EA in which the determination was that an environmental impact statement would not be prepared because the environmental effects of the project are not significant.

FY FISCAL YEAR - The federal government's base year for budgeting and accounting (October 1 to September 30).

GIS GEOGRAPHIC INFORMATION SYSTEM.

ICO ISSUES, CONCERNS, AND OPPORTUNITIES - ICO's which projects will resolve or capitalize on. Commonly called "issues".

IRM INTEGRATED RESOURCE MANAGEMENT - A land management philosophy which recognizes that all natural resources are connected through an intricate series of interrelationships. An interdisciplinary approach to project design is used to define resource relationships and integrate procedural requirements.

ISM INTEGRATED STAND MANAGEMENT - The IRM project implementation process for design of timber sales.

KEY CONTACT
A person, usually a non-federal person, known from past experience to be interested in or effected by projects of this type. These people should be contacted in early phases of project design.

LINE OFFICER
The person with decision authority on the project, i.e., District Ranger, Forest Supervisor, Regional Forester, or Chief.

L LINE
LOCATION LINE - A line laid out for final road/trail locations.

LMP LAND MANAGEMENT PLANNING (Forest Plans).

NEPA NATIONAL ENVIRONMENTAL POLICY ACT OF 1969.

NFMA NATIONAL FOREST MANAGEMENT ACT OF 1976.

NOI NOTICE OF INTENT - A notice published in the Federal Register informing the public that an EIS will be prepared.

PA PROPOSED ACTION - (Preferred Alternative)

PAI POTENTIALLY AFFECTED INTEREST.

PFR PROJECT FEASIBILITY REPORT (See IRM, Phase 5).

PIP PROJECT IMPLEMENTATION PROCESS.

P LINE
PRELIMINARY LINE - A line laid out for the initial road/trail locations.

PROJECT ID TEAM
The group of people including the project leader primarily responsible for project design and analysis.

PROJECT LEADER
The person primarily assigned to coordinate and design the project.

PROJECT RECORD
The file containing all products of the analysis phases.

RIM RECREATION INFORMATION MANAGEMENT - A national reporting system for tracking recreation outputs, site conditions, seasons-of-use, etc.

ROD RECORD OF DECISION - A decision document that accompanies a final EIS documenting the rationale for selecting the project alternative to be implemented.

SEACA
SUBSTANTIAL EFFECTIVE AGREEMENT ON A COURSE OF ACTION.

S&G STANDARD AND GUIDELINE (See Chapter 4 of Forest Plan).

SHPO STATE HISTORICAL PRESERVATION OFFICER.

SMALL PROJECT
A project that basically fits in the categories of actions that may be excluded from preparation of an environmental assessment or environmental impact statement. See FSH 1909.15.

SUPPORT STAFF
People, both Forest Service and non-Forest Service, with necessary skills for project design. These people may be part of the project interdisciplinary team or participate as consultants.

T&E THREATENED AND ENDANGERED - Threatened and endangered species of plants and animals that are listed by the US Fish and Wildlife Service and must be protected under the terms of the Endangered Species Act.